



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/212,203	12/15/1998	T. ALLAN HAMILTON	CLB7-B93	8736

27869 7590 12/11/2002

SKJERVEN MORRILL LLP  
THREE EMBARCADERO CENTER, 28TH FLOOR  
SAN FRANCISCO, CA 94111

EXAMINER

PHAN, HANH

ART UNIT	PAPER NUMBER
----------	--------------

2633

DATE MAILED: 12/11/2002

14

Please find below and/or attached an Office communication concerning this application or proceeding.



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/212,203	12/15/1998	T. ALLAN HAMILTON	CLB7-B93	8736

27869 7590 11/27/2002

SKJERVEN MORRILL LLP  
THREE EMBARCADERO CENTER, 28TH FLOOR  
SAN FRANCISCO, CA 94111

EXAMINER

PHAN, HANH

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 11/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.



## Office Action Summary

Application No.

09/212,203

Applicant(s)

HAMILTON, T. ALLAN

Examiner

Hanh Phan

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 December 1998.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-10 and 14-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-8 and 14-17 is/are allowed.
- 6) ☒ Claim(s) 1, 4, 9, 10, 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 2633

### DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 09/13/2002.

#### *Claim Rejections - 35 USC § 112*

2. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 10 recites the limitation "a transistor operating in **the weak inversion range**" in line 2. There is insufficient antecedent basis for this limitation in the claim .

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4, and 9 are rejected under 35U.S.C.103(a) as being unpatentable over Jackson (U.S.Patent number 5,714,909, cited by applicant) in view of Gimlett (U.S.Patent number 5,010,588).

Regarding claims 1 and 9, referring to Figures 1 and 2, Jackson teaches an improved infrared transceiver system comprising: a first sensor (12)(i.e., photodiode)(Fig. 2, col. 1, lines 59-60) for detecting infrared signals incident thereon and converting said signals to an electrical

Art Unit: 2633

current signal; a gain controller (first stage 14)(Fig. 2, col. 1, lines 60-66) for amplifying said current signals; a voltage converter (32)(Fig. 2) for converting said current signals into voltage signals (col. 2, lines 1-21, col. 3, lines 1-38).

Jackson differs from claims 1 and 9 in that he does not specifically teach the staged current amplification means comprised of at least two amplification stages, each said stage amplifying said current signals. However, Gimlett teaches staged current amplification means (i.e., the first current amplification stage 105, 106 and the second current amplification stage 107, 108 )(Fig. 1) comprised of at least two amplification stages, each said stage amplifying said current signals (col. 3, lines 22-42). One skilled in the art would clearly have recognized that providing the amplification stages would have allowed to amplify the signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the two amplification stages, each stage amplifying the current signals as taught by Gimlett in the system of Jackson in order to amplify the signals.

Regarding claim 4, the combination of Jackson and Gimlett teaches the gain controller comprises a current mirror in operative connection with said staged current amplification means (Fig. 1 of Jackson, col. 3, lines 16-38, and Fig. 1 of Gimlett).

6. Claims 10 and 18 are rejected under 35U.S.C.103(a) as being unpatentable over Jackson (U.S.Patent number 5,714,909, cited by applicant) in view of Gimlett (U.S.Patent number 5,010,588) and further in view of Umezawa et al (U.S.Patent number 6,034,567).

Art Unit: 2633

Regarding claims 10 and 18, the combination of Jackson and Gimlett differs from claims 10 and 18 in that it does not specifically teach one transistor operating in a weak inversion range. However, Umezawa teaches one transistor means operating in the weak inversion range (col. 5, lines 27-28). One skilled in the art would clearly have recognized that providing one transistor operating in a weak inversion range would have allowed to amplify the signals having high bandwidths and reduce the signal noise. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the transistor operating in a weak inversion range as taught by Umezawa in the system of the combination of Jackson and Gimlett in order to to amplify the signals having high bandwidths with low noise.

7. Claims 5-8 and 14-17 are allowed.

8. Applicant's arguments with respect to claims 1 and 4-10 and 14-18 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (703)306-5840.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (703)305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

*Leslie Pascal*  
LESLIE PASCAL  
PRIMARY EXAMINER